

**TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT NUMBER PERMIT # 45218**

I. INTRODUCTION

This permit is for the operation of a dry red chili peppers plant by Biad Chili Co., San Simon, L.L.C. This is a renewal of their Air Quality Permit # 26378; Place ID #14309.

Company Information

Mailing/Facility Address: 2701 North Noland Road, San Simon, Cochise, AZ 85652

II. PROCESS DESCRIPTION

The facility is a dry red chili processing plant. The raw material, chili, is received in either open wooden boxes or bulk truck trailers. Chilis are selected, washed, and sliced prior to entering the dehydration chamber. The sliced material is placed evenly on the wooden trays before being placed in the dehydration tunnels for dehydration. Natural gas is used as the fuel to maintain the necessary dehydration temperature in the dehydrator. The dehydrated material is then ground into flakes or powdered form and placed into boxes, drums, or sacks for being shipped out of the facility through road trailers. Seven to nine trucks bring in the raw material and two to three trucks take the final product out of the facility on a daily basis.

Limitations on Potential to Emit

This facility does not have the potential to emit (operating for 8760 hours per year) more than 100 tons per year of any criteria pollutant. The facility is a true minor source. The facility requires a Class II permit because it operates fuel burning equipment which is capable of being fired at a sustained rate of more than 1 million Btu per hour for more than eight hours per day. There are 13 burners, each with a rated capacity of 3.8 MMBtu per hour.

III. EMISSIONS

The emissions calculations for the permit review process were carried out using emission factor values given in the AP-42 for uncontrolled burning of natural gas in industrial boilers.

Table 1: Potential to Emit

Pollutant	Emission factor (lb/MMBtu)	Gas consumption/year (MMBtu/year)	Emission (Ton/year)
NO _x	0.1400	432,744	30.29
CO	0.0350	432,744	7.57
SO _x	0.0006	432,744	0.013
PM ₁₀	0.0062	432,744	1.34

IV. APPLICABLE REGULATIONS

The applicable regulations were identified by the agency as part of the permit review process. If necessary, the source is required to list any additional regulations that maybe applicable.

Table 2: Verification of Applicable Regulations

Unit	Year of Manufacture	Control Device	Rule	Verification
Dehydration Chamber	1996	None	R18-2-730	This rule applies to all unclassified sources.
Hammermill	1998	Cyclone	R18-2-730	This rule applies to all unclassified sources.

V. PREVIOUS PERMITS AND CONDITIONS

A. Previous Permits

Date of Permit Issuance	Permit Number	Application Basis
2002	26378	Operating permit

B. PREVIOUS PERMIT CONDITIONS

Table 3: Previous Permit Conditions

Old Permit Condition No.	Condition Description	Determination				Comments
		Revised	Kept	Deleted	Stream-lined	
Attachment "A"	General Provisions	x				Revised to match current language.
Attachment "B"	Specific Conditions					
I.	Facility wide Requirements	x				Revised to match current language.

Old Permit Condition No.	Condition Description	Determination				Comments
		Revised	Kept	Deleted	Stream-lined	
II.	Fuel Limitation			x	x	This condition has been moved to Section II. under the Dehydration Chamber.
III	Dehydration Chamber	x				Revised to include additional requirements.
IV	Non-Point Sources	x				Revised to match current language.

VI. MONITORING AND RECORD KEEPING REQUIREMENTS

A. Monitoring Requirements

Opacity monitoring requirements:

The permit specifies opacity limitations for the emission source located within the facility. Monthly Method 9 surveys of visual emissions from the dehydration chamber and hammermill stacks are to be performed by a certified Method 9 observer.

B. Record Keeping Requirements

The Permittee is to keep records of the date, time and the results of any Method 9 observation made, as well as the name of the observer who conducted the test.

VII. LEARNING SITE POLICY

In accordance with ADEQ's Environmental Permits and Approvals Near Learning Sites Policy, the Department conducted an evaluation to determine if any nearby learning sites would be adversely impacted by the Biad Chili facility. Learning sites consist of all existing public schools, charter schools and private schools at the K-12 level, and all planned sites for schools approved by the Arizona School Facilities Board. The learning sites policy was established to ensure that the protection of children at learning sites is considered before a permit approval is issued by ADEQ.

The Department did not identify any learning sites within two miles of the facility.

VIII. COMPLIANCE HISTORY

There has been one air quality case associated with this facility. The case was initiated in March of 2003. There have been nine facility inspections with one facility inspection resulting in the below described air quality case.

Case Number 24838

A Notice of Opportunity to Correct deficiencies was issued to Biad Chili Co. on April 25, 2003, for one alleged permit violation based on an inspection of the facility completed on March 14, 2003 (Inspection ID 34423). The violation is as follows:

1. Non-compliance with **Permit 26378 - Attachment A, VII A. Compliance Certification - *The Permittee shall submit a compliance certification to the Director annually, which describes the compliance status of the source with respect to each permit condition. The certification shall be submitted no later than January 31st, and shall report the compliance status of the source during the previous calendar year.*** The alleged violation indicates that during the on-site inspection of March 14, 2003, the facility could not provide documentation that the annual Compliance Certification report was submitted to ADEQ by January 31, 2003, for calendar year 2002. ADEQ gave Biad Chili Co. a deadline of August 28, 2003, to establish compliance.

The facility sent in a response that included the corrective actions that have been taken, along with appropriate documentation. The facility achieved compliance on May 15, 2003.

There are no open violations associated with this facility.

IX. APPLICABILITY OF A.A.C. R18-2-730.E

A.A.C. R18-2-730.E.2 states that:

No Person shall operate or use any machine, equipment, or other contrivance for the treatment or processing of animal or vegetable matter, separately or in combination, unless all gaseous vapors and gas entrained effluents from such operations, equipment, or contrivance have been passed through such other device which is designed, installed and maintained to prevent the emission of odors or other air contaminants and which is approved by the Director.

Treatment or processing of vegetable matter refers to handling the vegetable matter or subjecting the vegetable matter to a special process. In Biad Chilis' case the special process is that chilis are placed in the dehydration tunnels for dehydration. Natural gas is used as the fuel to maintain the necessary dehydration temperature in the dehydrator. The dehydrated material is then ground into flakes or powdered form and placed into boxes, drums, or sacks for being shipped out of the facility through road trailers.

It is expected that inclusion of this permit condition will not increase Biad Chilis' compliance burden because the dehydration chamber at Biad Chili have not historically been a source of odor or complaints as verified by their compliance history. The current configuration of the equipment is approved by the Director to meet A.A.C. R18-2-730.E.2.

X. ABBREVIATIONS

A.A.C.	.....	Arizona Administrative Code
ADEQ	.....	Arizona Department of Environmental Quality
EPA	.....	Environmental Protection Agency
lb	.....	Pound
MMbtu	.....	Million British Thermal Unit